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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-5, 7, 9-20, 22-23, 27-32, and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (WO 00/08706) in view of Ue et al. (US Pat# 6,487,394) and further in view of Persson et al. (US Pat# 6,028,851).

Regarding claim 1, method claim 1 is rejected for the same reason as system claim 17 since the recited elements would perform the claimed steps.

Regarding claim 3, method claim 3 is rejected for the same reason as system claim 20 since the recited elements would perform the claimed steps.

Regarding claim 4, method claim 4 is rejected for the same reason as system claim 18 since the recited elements would perform the claimed steps.

Regarding claim 5, method claim 5 is rejected for the same reason as system claim 19 since the recited elements would perform the claimed steps.

Regarding claim 7, Park further teaches the transmit power assigned to the forward link preamble signal, is assigned independently of the basestation's transmission data rate (Page 7 lines 20-23, it is silent of setting a transmission rate so the power is independent of the transmission rate).

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Regarding claim 9, method claim 9 is rejected for the same reason as system claim 27 since the recited elements would perform the claimed steps.

Regarding claim 10, method claim 10 is rejected for the same reason as system claim 28 since the recited elements would perform the claimed steps.

Regarding claim 11, method claim 11 is rejected for the same reason as system claim 29 since the recited elements would perform the claimed steps.

Regarding claim 12, method claim 12 is rejected for the same reason as system claim 30 since the recited elements would perform the claimed steps.

Regarding claim 13, method claim 13 is rejected for the same reason as system claim 31 since the recited elements would perform the claimed steps.

Regarding claim 14, method claim 14 is rejected for the same reason as system claim 32 since the recited elements would perform the claimed steps.

Regarding claim 15, method claim 15 is rejected for the same reason as system claim 23 since the recited elements would perform the claimed steps.

Regarding claim 16, Park further teaches wherein the communications network is a CDMA network (Page 10 lines 8-19).

Regarding claim 17, Park's device for controlling initial transmission power of forward link channel in mobile communications system teaches a system for controlling transmit power of a forward link signal in a communications network (Page 2 lines 15-23), the system comprising a mobile device MS (Fig. 2), the mobile device adapted to receive a first signal from a basestation 212 (Fig. 2) prior to receiving the preamble signal (in applicant's specification on page 1 lines 21-23 and page 3 lines 21-24 it

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defines a preamble as when the mobile device and the basestation become acquired and synchronized, a pilot signal does not do this step. A pilot signal is transmitted before a preamble to alert mobile devices that the basestation is around and then after the pilot then the mobile device and basestation become acquired and synchronized); evaluate a signal the first signal 214 (Fig. 2); and transmit desired preamble signal, the desired preamble signal being an energy per chip to in an interference density value to optimize a network performance criteria based upon current network conditions including at least one of interference, fading, and unbalanced, RF, Radio Frequency, links (Page 5 lines 13-16, Page 5 line 25-Page 6 line 5, Page 7 line 24-Page 8 line 4, Page 10 line 19, Page 11 lines 11-14, Page 12 lines 3-9, and Page 14 line 6-9); and a basestation BS (Fig. 2), the basestation being adapted to send the first signal with a first signal transmit power 212 (Fig. 2) prior to transmitting the preamble signal (see explanation above); receive the information about the mobile device received signal and the desired preamble signal from the mobile device 216 (Fig. 2); and set the transmit power of the forward link preamble signal based on the information about the received signal and the first signal transmit power 216-218 (Fig. 2), the setting of the transmit power in the basestation including estimating a value of a signal component of the first signal based on the information about the received signal to noise ratio (Page 14 line 3-Page 15 line 7); determining a desired value for the signal component (Page 14 line 3-Page 15 line 7); and setting the transmit power of the forward link preamble signal by adding the difference between the desired preamble signal component value to optimize a network performance criteria based upon current network conditions and

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the estimated signal component value to the first signal transmit power (Page 14 line 3-Page 15 line 7); and wherein the forward link preamble signal, sent during the traffic channel initialization period in a CDMA network (Page 10 lines 8-19). Park fails to clearly teach evaluating a signal to noise ratio and a desired signal component value.

Ue's radio communication device of controlling transmission rate teaches a system for controlling transmit power of a forward link signal in a communications network (Col. 1 line 58-Col. 2 line 4), the system comprising a mobile device (Fig. 2), the mobile device adapted to receive a first signal from a basestation (Fig. 8); evaluate a signal to noise ratio of the first signal (Col. 3 line 66-Col. 4 line 27 and Col. 5 lines 31-48); and transmit information about the received signal to noise ratio to the basestation to optimize a network performance criteria based upon current network conditions including at least one of interference, fading, and unbalanced, RF, Radio Frequency, links (Fig. 8, Col. 5 lines 31-48); and the basestation, the basestation being adapted to send the first signal with a first signal transmit power (Fig. 8, Col. 5 lines 31-48); receive the information about the received signal to noise ratio from the mobile device (Fig. 8 and Fig. 12); and set the transmit power of the forward link signal based on the information about the received signal to noise ratio to optimize a network performance criteria based upon current network conditions and the first signal transmit power (Fig. 12 and Col. 6 line 59-Col. 7 line 8), the setting of the transmit power in the basestation including estimating a value of a signal component of the first signal based on the information about the received signal to noise ratio (Fig. 12 and Col. 6 line 59-Col. 7

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line 8); determining a desired value for the signal component (Fig. 12 and Col. 6 line 59-Col. 7 line 8).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate evaluating a signal to noise ratio as taught by Ue into Park's device for controlling initial transmission power of forward link channel in mobile communications system in order to reduce interference and increase performance (Col. 1 lines 46-55).

Park and Ue fail to teach a desired signal component value transmitted from the mobile station.

Persson teaches transmitting a desired component signal to noise ratio value desired by the mobile device to optimize a network performance criteria based upon current network conditions including at least one of interference, fading, and unbalanced, RF, Radio Frequency, links (Col. 6 line 60-Col. 7 line 65, mobile station transmit desired SIR to base station).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a desired signal component value as taught by Persson into evaluating a signal to noise ratio as taught by Ue into Park's device for controlling initial transmission power of forward link channel in mobile communications system in order to reduce interference and improve system performance (Col. 2 lines 60-63).

Regarding claim 18, Park further teaches wherein the first signal is a pilot signal 212 (Fig. 2).

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Regarding claim 19, Park further teaches wherein the transmitting of information from the mobile device is performed over an access channel 216 (Fig. 2).

Regarding claim 20, Park further teaches wherein the forward link signal is a preamble on a traffic channel is sent from the basestation to the mobile device (Fig. 1 and 2).

Regarding claim 22, Park further teaches wherein the evaluating of the first signal in the mobile device is performed on a first signal component (Page 14 line 3-Page 15 line 7).

Regarding claim 23, Park further teaches wherein the first signal component is the  $E_c/I_o$  of the first signal (Page 14 line 3-Page 15 line 7).

Regarding claim 27, Ue further teaches wherein the desired signal component value is limited by a threshold value, whereby if the value based on the mobile device exceeds the threshold value, the desired signal component value is set to the threshold value (Fig. 12).

Regarding claim 28, Park further teaches wherein the desired preamble signal component value is selected from a predetermined value at the basestation and a value received from the mobile device (Page 14 line 3-Page 15 line 7).

Regarding claim 29, Park further teaches wherein the selecting is performed based on the higher value between the predetermined value at the basestation and the value received from the mobile device (Page 14 line 3-Page 15 line 7).



Regarding claim 30, Ue further teaches wherein the selecting is limited by a threshold value, whereby if the value received from the mobile device exceeds the threshold value, the selecting step uses the threshold value (Fig. 12).

Regarding claim 31, Park further teaches wherein the setting further includes adding an offset parameter to the transmit power of the forward link preamble signal (Page 14 line 3-Page 15 line 7).

Regarding claim 32, Park further teaches wherein the value of the offset parameter is between 0 and 6 dB (Page 14 line 3-Page 15 line 7, the value could fall in that range in a CDMA network).

Regarding claim 36, apparatus claim 36 is rejected for the same reason as system claim 17 since the recited elements would perform the claimed steps. Note, Park teaches the transmitter setting the transmit power of the forward link signal independently of a transmission rate of the base station (Page 7 lines 20-23, it is silent of setting a transmission rate so the power is independent of the transmission rate).

Regarding claim 37, apparatus claim 37 is rejected for the same reason as system claim 17 since the recited elements would perform the claimed steps. Note, Park teaches the transmitter setting the transmit power of the forward link signal independently of a transmission rate of the base station (Page 7 lines 20-23, it is silent of setting a transmission rate so the power is independent of the transmission rate).

***Response to Arguments***

Applicant's Remarks	Examiner's Response
"While the Examiner relied upon Park for	Park teaches measuring pilot strength

showing determination of a desired signal value for a signal component on page 14, line 3-page 15, line 7, Park fails to disclose that the desired value is to optimize a network performance criteria based upon current network conditions including interference, fading, or unbalanced RF links.”	which is based on factors of interference, fading, etc. (Page 5 lines 13-16, Page 5 line 25-Page 6 line 5, Page 7 line 24-Page 8 line 4, Page 10 line 19, Page 11 lines 11-14, Page 12 lines 3-9, and Page 14 line 6-9). The better the strength means there is less interference, fading, and etc.
“The Examiner further noted that Ue would similarly also be relevant. But, the Applicants also assert that Ue similarly also fails to disclose the sending by a mobile device of a signal containing a desired preamble signal component SNR value desired by the mobile device to optimize a network performance criteria based upon current network conditions including at least one of interference, fading, and unbalanced RF links.”	Again, similar to the above response. Ue teaches factoring in interference, fading and etc. in column 4 lines 7-27 and column 5 lines 31-48. The measurements factor in interference and fading to optimize the network performance.
“And, Persson relied upon by the Examiner for showing transmission of a desired component signal to noise ratio	Similar to the above responses. Persson teaches factoring interference (SIR) in column 6 line 60-column 7 line 65.

value to optimize a network performance criteria based upon current network conditions also fails to disclose optimization of a network performance criteria based upon current network conditions including interference, fading, or unbalanced RF links.”	
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***Conclusion***

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW WENDELL whose telephone number is (571)272-0557. The examiner can normally be reached on 8:00-5:30 M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew Wendell/  
Examiner, Art Unit 2618

5/19/2010